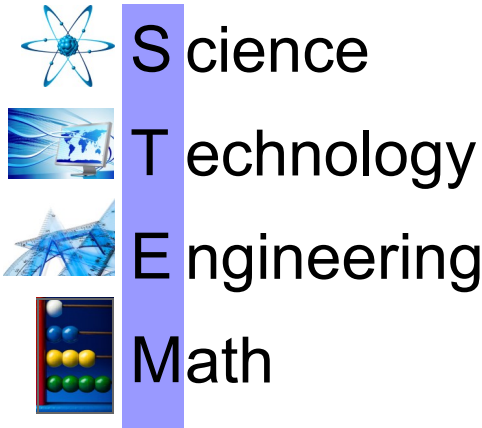


****Wanted****

Students with an interest in gaining hands-on experience in the areas of:



Check out the following pages for a listing of the courses being offered this spring and fall!

The Central Columbia School District, in collaboration with the Alcoa Foundation and the Central Columbia Educational Foundation, is proud to offer the opportunity to participate in Science, Technology, Engineering, and Math (STEM) camps. These hands-on educational camps are completely free of charge for students. Registrations will be accepted on a first-come, first-serve basis. Transportation will **NOT** be provided to students. Courses are being hosted by the Bloomsburg Area, Berwick Area, and the Central Columbia School Districts.

Detach here. Send in only registration form.



STEM Course Registration Form

Student Name: _____ School District: _____

Student Address: _____

Student City, State, & Zip: _____

Parent Name(s): _____

Parent Phone Number(s): _____

Grade Student Will Enter in Fall 2012 (circle appropriate grade): 5 6 7 8 9 10 11 12

Course(s) for Which Student is Registering (circle all that apply):

Bridge Building—June 11-13, 2012

Flavor Chemistry—June 12-14, 2012

2000 Yrs of Secret Codes—April 21 & April 28, 2012

Flight Challenge—June 25-29, 2012

Bone Detectives—May 5 & May 12, 2012

Alternative Energy—June 11-12, 2012

Edible Math—June 18-21, 2012

Sport Science—March 24 & March 31, 2012

Science of Sledding—February 4-5, 2012

All registrations will be on a first-come, first-served basis. There are NO charges for these courses.

**Please mail registration forms to:
Central Columbia School District
Attn: Mr. Harry C. Mathias
4777 Old Berwick Road
Bloomsburg, PA 17815**

Bridge Building

Advisor: Tom Gill

Course Description: Students will build and test parts of bridges to understand the strengths of materials. Then they will experiment with building complete bridges and measuring the forces that are in each part of the bridge as a car drives across.

Age: Students entering grades 6-12 in Fall of 2012

Dates: June 18 through June 20, 2012

Time: 8:00a.m.—11:00a.m.

Location: Central Columbia High School

Maximum # of Students: 16 students

Flight Challenge

Advisor: Scott Osborne & Mark Thomas

Course Description: Students will design gliders that will stay in the air for the longest period of time and will design a device to protect an egg that is dropped from a certain height.

Age: Students entering grades 7-9 in Fall of 2012.

Dates: June 25 through June 29, 2012

Time: 9:00a.m.—11:00a.m.

Location: Central Columbia High School

Maximum # of Students: 20 students

Flavor Chemistry

Advisor: Kaitlyn Sanders

Course Description: Students will explore the career of a flavor chemist. Students will be involved in discussion and learning organic chemistry lab techniques, synthesize their own flavor compound, isolate flavor compounds from common foods using green-chemistry, and make liquid nitrogen ice-cream using vanilla extract.

Age: Students who have taken at least one year of chemistry at the HS level.

Dates: June 12 through June 14, 2012

Time: 8:00a.m.—12:00a.m.

Location: Central Columbia High School

Maximum # of Students: 12-18 students

Bone Detectives

Advisor: Madge Schworer

Course Description: Students will focus on forensic anthropology using the analysis of skeletal remains to determine the characteristics or identity of a victim.

Age: Students entering grades 5-8 in Fall of 2012

Dates: Saturdays—May 5, 2012 and May 12, 2012

Time: 8:00a.m.—12:00p.m.

Location: Central Columbia Middle School

Maximum # of Students: 12 students

Alternative Energy

Advisor: Jamie Raski

Course Description: Students will explore the idea of alternative energy. Students will have the opportunity to measure the energy of different electrical devices, experiment with solar panels, assemble and race solar cars, build a windmill, and attempt to prepare a snack using solar energy in a variety of lab-based activities..

Age: Students entering grades 6-8 in Fall of 2012

Dates: June 11 through 12, 2012

Time: 8:00a.m.—12:00p.m.

Location: Central Columbia Middle School

Maximum # of Students: 15 students

2000 Years of Secret Codes

Advisor: Dr. John Polhill

Course Description: Students will learn a variety of secret codes that just might enhance their ability to keep secrets from classmates. Discussions on encoding and decoding messages with codes and also cracking codes.

Age: Students grades 6-8 in the 2011-12 school year

Dates: April 21, 2012 and April 28, 2012

Time: 8:00a.m.-12:00p.m.

Location: Central Columbia Middle School

Maximum # of Students: 20 students

Edible Math Camp

Advisor: Toni Farides

Course Description: Cook your way to a fun experience this summer. Campers will prepare their own snacks in the kitchen working in small groups. They will practice volume measurement, use food fractions, learning money concepts and review math properties.

Age: Students entering grades 5-8 in Fall 2012

Dates: June 18 through June 21, 2012

Time: 10:00a.m.-2:00p.m.

Location: Bloomsburg High School

Maximum # of Students: 12 students

Sport Science

Advisor: Matt Shrader

Course Description: Students will describe the physics behind several of our most popular sports played in high school. Students will be engaged in physical fitness activities while analyzing the physical motion and science behind the sport.

Age: Students grades 9-12 in the 2011-12 school year

Dates: March 24, 2012 and March 31, 2012

Time: 12:00p.m.-4:00p.m.

Location: Berwick Area High School Room 26

Maximum # of Students: 30 students

Science of Sledding

Advisor: Matt Shrader

Course Description: Students will spend two days analyzing the physics of sledding. The first day will consist of reviewing concepts of velocity, acceleration, Newton's Laws, weight, normal force, and friction of incline planes. Students will be asked to calculate the coefficient of friction between their sled and snow, measure the approximate slope of the hill and then make a prediction of what the resulting acceleration will be. Then students will experiment and test their prediction by measuring the length of the hill and time to use kinematics to calculate their acceleration. Students will calculate % error and re-evaluate and try to eliminate any sources of error.

Age: Students grades 9-12 in the 2011-12 school year.

Dates: February 4 through February 5, 2012

Time: 12:00p.m.-4:00p.m.

Location: Berwick Area High School Room 26

Maximum # of Students: 30 students

****Students must provide own sled.**